



Federal Bureau of Investigation
Digital Evidence Laboratory

Operational Technology
ERF Building 27958A
Quantico, Virginia 22135

REPORT OF EXAMINATION

To: Cleveland
Squad 11
Attention: SA Christopher A. Garnett

Date: July 26, 2011

Case ID No.: 343U-CV-77580 -4

Lab No.: 110629255 SH

Reference: Communication dated June 27, 2011

Ref. No.: Serial 2

Title: REQUEST FOR FBI ASSISTANCE
FROM THE CUYAHOGA COUNTY CORONER'S OFFICE;
DOMESTIC POLICE COOPERATION - MISCELLANEOUS

Date specimen received: June 29, 2011

Specimens:

- Q1 One X-26 Taser, serial number X00-115933 (1B1, E4512516)
- Q2 One X-26 Taser, serial number X00-124860 (1B1, E4512516)
- Q3 One X-26 Taser, serial number X00-400949 (1B1, E4512516)

Request:

FEDA is requested to download all electronic data stored in the three tasers.

Opinions and Conclusions:

At the time of the examination on July 20, 2011, the internal clock times of each of the three Tasers required correction. This appears to have been the first time



correction made in several years. It is believed that using the time corrections would provide a more accurate reflection of firing times on June 13, 2011.

Summary of Examination:

The complete Recorded Firing Data of each specimen was downloaded to a computer and saved to a compact disk (CD) labeled Derivative Evidence 1 (DE1). In order to complete the download, the internal time of each specimen had to be reset to match the computer time. This would affect the recorded time of future firings but does not change the prior recorded data. A time correction of 30 minutes and 27 seconds was made to Q1. A time correction of 28 minutes and 09 seconds was made to Q2. A time correction of 39 minutes and 59 seconds was made to Q3. On the evening of June 3, 2011, The Q1 Taser recorded five firings. The Q2 Taser recorded one firing and the Q3 Taser recorded four firings. A separate sheet was made showing the firings on June 3, 2011 with times corrected in accordance with the time adjustments made on July 20, 2011. This time correction sheet is also contained on the DE1 CD. Testing of the three Tasers did not indicate they were malfunctioning in any manner.

Details of Examination:

Each of the three X-26 Tasers was connected to a computer using Taser X-26 Data Download Version 17.9 and the Recording Firing Data was downloaded. Each download provides the date, time, duration, temperature and battery condition of each firing. The data only records a sequence of firings or trigger pulls. The firings could have been applied to the same probes, a series of different cartridges or a firing with no cartridge in place. A normal firing cycle duration is five seconds. Firing cycles deviating from that duration indicate the user placed the safety switch on to stop the cycle or held the trigger down to lengthen the cycle. Prior to the download, each of the three Tasers required a time correction to agree with the time on the computer which had been checked with the official U. S. Time. The Q1 specimen required a time correction of plus 0:30:27. The Q2 specimen required a time correction of plus 0:28:09. The Q3 specimen required a time correction of plus 0:39:59. This time correction is required by the software but it does not change the recorded times of prior firings in the Firing Data. The complete firing report for each Taser can be found on the DE1 CD. In addition, a sheet containing the firing times of the three Tasers on the evening of June 13, 2011 was prepared with the above time corrections added to each firing time. This time correction sheet is also contained on the DE1 CD. Prior to the data downloading of the three specimens, each was given a spark test with no cartridge in place and appeared to function normally. After the data was downloaded, each of the three specimens was connected to an oscilloscope and test fired with a 600 ohm resistive load and with a 1/1000 voltage dividing resistor load. The waveforms appeared normal. There was no indication that any of the specimens were not functioning as designed. The oscilloscope images are contained on the DE1 CD.

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Derivative Evidence 1: Compact Disk (DE1)

Disposition of Evidence:

The Q1, Q2 and Q3 specimens will be returned with the DE1 CD to the Cleveland Office.

Examiner:


Charles W. Wilmore

Operational Technology Division
Computer Analysis Response Team

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TIME CORRECTIONS FOR THREE TASERS

TRIGGER PULLS ON JUNE 13, 2011

Q1	Recorded Time	Correction	Corrected Time	Duration	
	1245	22:06:54	0:30:27	22:37:21	1
	1246	22:36:09	0:30:27	23:06:36	5
	1247	22:36:20	0:30:27	23:06:47	10
	1248	22:36:38	0:30:27	23:07:05	7
	1249	22:37:19	0:30:27	23:07:46	23
Q2	669	22:39:38	0:28:09	23:07:47	16
Q3	1067	22:13:28	0:39:59	22:53:27	1
	1068	22:19:36	0:39:59	22:59:35	1
	1069	22:26:41	0:39:59	23:06:40	5
	1070	22:27:09	0:39:59	23:07:08	8



TASER Information		Downloaded By	
Serial #	<i>X00-115933</i>	Name	<i>Charles Wilmore</i>
Model #	<i>X26</i>	Dept	<i>Examiner</i>
X26 Software Version	<i>21</i>	Rank	<i>Forensic</i>
Dataport CD Version	<i>17.9</i>	Windows Version	<i>Windows XP</i>
Record Date Range	<i>All Data</i>	Report Generated	<i>07/20/11 12:03:33 (local)</i>
Computer Time Zone	<i>Eastern Standard Time</i>		
Using Daylight Savings Time	<i>No</i>		

Recorded Firing Data

Seq	GMT Time	Local Time	Duration	Temp	Battery
0001	02/24/00 21:48:58	02/24/00 16:48:58	5	19	94
0002	01/06/08 02:58:16	01/05/08 21:58:16	1	20	93
0003	01/06/08 02:58:17	01/05/08 21:58:17	1	21	93
0004	01/06/08 03:12:17	01/05/08 22:12:17	1	21	93
0005	01/08/08 02:55:33	01/07/08 21:55:33	1	23	93
0006	01/08/08 02:55:42	01/07/08 21:55:42	5	24	93
0007	01/08/08 02:56:25	01/07/08 21:56:25	5	26	92
0008	01/08/08 02:59:26	01/07/08 21:59:26	1	28	91
0009	01/08/08 19:44:43	01/08/08 14:44:43	1	23	91
0010	01/10/08 03:12:09	01/09/08 22:12:09	1	21	91
0011	01/10/08 13:54:57	01/10/08 08:54:57	1	20	91
0012	01/11/08 02:58:29	01/10/08 21:58:29	1	21	91
0013	01/12/08 02:58:55	01/11/08 21:58:55	1	22	91
0014	01/13/08 03:25:49	01/12/08 22:25:49	1	22	91

	05/10/11 19:20:10	05/10/11 14:20:10	1	22	57
1216	05/11/11 19:16:09	05/11/11 14:16:09	1	23	57
1217	05/12/11 19:18:53	05/12/11 14:18:53	1	23	56
1218	05/16/11 19:32:30	05/16/11 14:32:30	1	18	56
1219	05/17/11 14:07:44	05/17/11 09:07:44	1	19	56
1220	05/19/11 19:03:44	05/19/11 14:03:44	1	22	56
1221	05/20/11 19:11:32	05/20/11 14:11:32	1	19	56
1222	05/24/11 19:11:30	05/24/11 14:11:30	1	19	56
1223	05/25/11 14:18:47	05/25/11 09:18:47	1	20	56
1224	05/26/11 19:11:21	05/26/11 14:11:21	1	20	56
1225	05/27/11 19:21:59	05/27/11 14:21:59	1	19	56
1226	05/29/11 11:16:12	05/29/11 06:16:12	1	21	56
1227	06/01/11 11:24:17	06/01/11 06:24:17	1	21	55
1228	06/02/11 11:36:51	06/02/11 06:36:51	1	19	55
1229	06/03/11 11:16:43	06/03/11 06:16:43	1	18	55
1230	06/04/11 10:50:26	06/04/11 05:50:26	1	22	55
1231	06/04/11 10:50:31	06/04/11 05:50:31	1	22	55
1232	06/04/11 10:50:33	06/04/11 05:50:33	1	23	55
1233	06/04/11 10:50:34	06/04/11 05:50:34	1	23	55
1234	06/04/11 11:13:48	06/04/11 06:13:48	1	19	55
1235	06/05/11 11:08:44	06/05/11 06:08:44	1	22	55
1236	06/06/11 11:10:47	06/06/11 06:10:47	1	22	55
1237	06/07/11 10:49:25	06/07/11 05:49:25	1	24	54
1238	06/08/11 11:21:04	06/08/11 06:21:04	1	22	54
1239	06/09/11 11:19:01	06/09/11 06:19:01	1	22	54
1240	06/10/11 12:07:44	06/10/11 07:07:44	1	21	54
1241	06/11/11 11:12:07	06/11/11 06:12:07	1	20	54
1242	06/12/11 02:50:16	06/11/11 21:50:16	1	19	54
1243	06/12/11 11:11:19	06/12/11 06:11:19	1	22	54
1244	06/13/11 11:17:21	06/13/11 06:17:21	1	19	54

	06/14/11 03:06:54	06/13/11 22:06:54	1	19	54
1246	06/14/11 03:36:09	06/13/11 22:36:09	5	22	54
1247	06/14/11 03:36:20	06/13/11 22:36:20	10	24	53
1248	06/14/11 03:36:38	06/13/11 22:36:38	7	24	52
1249	06/14/11 03:37:19	06/13/11 22:37:19	23	26	52
1250	07/20/11 16:31:19	07/20/11 11:31:19	Old Time		
1251	07/20/11 17:01:46	07/20/11 12:01:46	New Time		

End of Report.

Q2: JAMES L. DUFF

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**TASER Information**

Serial # *X00-124860*
Model # *X26*
X26 Software Version *21*
Dataport CD Version *17.9*
Record Date Range *All Data*
Computer Time Zone *Eastern Standard Time*
Using Daylight Savings Time *No*

Downloaded By

Name *Charles Wilmore*
Dept *Examiner*
Rank *Forensic*
Windows Version *Windows XP*
Report Generated *07/20/11 12:54:03 (local)*

Recorded Firing Data

Seq	GMT Time	Local Time	Duration	Temp	Battery
0001	10/13/08 17:48:06	10/13/08 12:48:06	Old Time		
0002	10/13/08 17:48:07	10/13/08 12:48:07	New Time		
0003	10/13/08 17:48:09	10/13/08 12:48:09	Old Time		
0004	10/13/08 17:48:09	10/13/08 12:48:09	New Time		
0005	10/13/08 17:50:38	10/13/08 12:50:38	5	26	99
0006	10/13/08 17:50:46	10/13/08 12:50:46	5	26	99
0007	10/13/08 17:50:53	10/13/08 12:50:53	5	27	99
0008	10/13/08 17:51:02	10/13/08 12:51:02	7	28	98
0009	10/21/08 09:53:32	10/21/08 04:53:32	1	22	98
0010	10/23/08 03:01:43	10/22/08 22:01:43	1	20	98
0011	10/25/08 19:05:21	10/25/08 14:05:21	1	22	97
0012	10/25/08 22:17:48	10/25/08 17:17:48	1	25	97
0013	10/25/08 22:17:51	10/25/08 17:17:51	1	25	97
0014	10/25/08 22:17:54	10/25/08 17:17:54	1	25	97

	02/05/11 21:34:34	02/05/11 16:34:34	1	20	77
0646	02/09/11 20:46:12	02/09/11 15:46:12	1	20	77
0647	02/10/11 04:14:52	02/09/11 23:14:52	1	18	76
0648	02/24/11 20:47:26	02/24/11 15:47:26	1	21	76
0649	02/25/11 20:22:25	02/25/11 15:22:25	1	21	76
0650	03/12/11 20:56:40	03/12/11 15:56:40	1	20	76
0651	03/15/11 10:34:08	03/15/11 05:34:08	1	21	76
0652	03/22/11 20:07:17	03/22/11 15:07:17	1	19	75
0653	03/26/11 11:25:59	03/26/11 06:25:59	1	24	75
0654	03/30/11 09:18:30	03/30/11 04:18:30	1	25	75
0655	04/08/11 11:06:56	04/08/11 06:06:56	2	22	75
0656	04/28/11 16:52:05	04/28/11 11:52:05	1	-95	75
0657	04/29/11 19:54:13	04/29/11 14:54:13	1	23	50
0658	04/30/11 20:27:45	04/30/11 15:27:45	1	21	50
0659	05/01/11 19:11:16	05/01/11 14:11:16	1	22	50
0660	05/09/11 19:36:21	05/09/11 14:36:21	1	20	50
0661	05/10/11 03:31:40	05/09/11 22:31:40	1	22	49
0662	05/11/11 11:44:54	05/11/11 06:44:54	1	20	49
0663	05/11/11 11:44:57	05/11/11 06:44:57	1	20	49
0664	05/20/11 19:46:12	05/20/11 14:46:12	1	19	49
0665	06/03/11 19:13:41	06/03/11 14:13:41	1	19	49
0666	06/03/11 22:10:35	06/03/11 17:10:35	1	24	49
0667	06/03/11 22:12:35	06/03/11 17:12:35	1	26	49
0668	06/08/11 03:24:14	06/07/11 22:24:14	1	22	48
0669	06/14/11 03:39:38	06/13/11 22:39:38	16	24	48
0670	07/20/11 17:23:35	07/20/11 12:23:35	Old Time		
0671	07/20/11 17:51:44	07/20/11 12:51:44	New Time		

End of Report.

Q3: DAVID L. HOLDERBAUM



TASER Information		Downloaded By	
Serial #	X00-400949	Name	Charles Wilmore
Model #	X26	Dept	Examiner
X26 Software Version	21	Rank	Forensic
Dataport CD Version	17.9	Windows Version	Windows XP
Record Date Range	All Data	Report Generated	07/20/11 13:34:57 (local)
Computer Time Zone	Eastern Standard Time		
Using Daylight Savings Time	No		

Recorded Firing Data

Seq	GMT Time	Local Time	Duration	Temp	Battery
0001	07/29/08 22:42:45	07/29/08 17:42:45	Old Time		
0002	07/29/08 22:42:44	07/29/08 17:42:44	New Time		
0003	07/29/08 22:43:49	07/29/08 17:43:49	5	23	99
0004	07/29/08 22:43:55	07/29/08 17:43:55	5	24	99
0005	07/29/08 22:44:02	07/29/08 17:44:02	5	24	99
0006	08/11/08 16:26:41	08/11/08 11:26:41	Old Time		
0007	08/11/08 16:27:49	08/11/08 11:27:49	New Time		
0008	08/11/08 16:27:51	08/11/08 11:27:51	Old Time		
0009	08/11/08 16:27:51	08/11/08 11:27:51	New Time		
0010	08/20/08 01:55:30	08/19/08 20:55:30	1	21	98
0011	08/20/08 03:40:54	08/19/08 22:40:54	1	24	98
0012	08/23/08 10:54:10	08/23/08 05:54:10	1	21	98
0013	08/24/08 10:52:38	08/24/08 05:52:38	1	22	98
0014	08/27/08 02:07:41	08/26/08 21:07:41	3	21	98

	06/11/11 11:03:32	06/11/11 06:03:32	1	20	34
1066	06/13/11 03:20:42	06/12/11 22:20:42	1	21	34
1067	06/14/11 03:13:28	06/13/11 22:13:28	1	20	34
1068	06/14/11 03:19:36	06/13/11 22:19:36	1	21	34
1069	06/14/11 03:26:41	06/13/11 22:26:41	5	21	33
1070	06/14/11 03:27:09	06/13/11 22:27:09	8	23	33
1071	07/20/11 17:25:33	07/20/11 12:25:33	Old Time		
1072	07/20/11 18:05:32	07/20/11 13:05:32	New Time		

End of Report.